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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/743,928	12/22/2003	Andrew P. Nguyen	6601.P027	9393

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EXAMINER

TADESSE, YEWEBDAR T

ART UNIT PAPER NUMBER

1734

DATE MAILED: 07/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/743,928

Applicant(s)

NGUYEN, ANDREW P.

Examiner

Yewebdar T. Tadesse

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 22-24 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-21 is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/22/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Tanaka et al (US 2002/0121341 A1).

With respect to claim 1, Tanaka et al discloses (see Fig 53) a system comprising: a dispense head (630) having a passageway (634) therethrough, an inlet opening (638, 642), at least one outlet opening (632), and a drain opening (640, 644), the passageway (634) interconnecting the inlet opening, the at least one outlet opening, and the drain opening; a first valve (648, 668) connected to the inlet opening; and a second valve (652, 672) connected to the drain opening, a fluid flowing into the inlet opening, through the passageway, and out of the at least one outlet opening when the first valve is open and the second valve is closed, the fluid flowing from the passageway only out of the drain opening (644) when the first valve (648) is closed and the second valve (672) is open (see paragraph 330, vacuum pump sucking the fluid through the discharge pipe 670).

As to claim 11, Tanaka et al discloses (see Fig 53) a system comprising: a dispense head (630) having a passageway (634) therethrough, an inlet opening (638, 642) at least one outlet opening (632), and a drain opening (640, 644), the passageway

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(634) interconnecting the inlet opening, the at least one outlet opening (632), and the drain opening (640, 644); a first valve (648, 668) connected to the inlet opening; a second valve (652, 672) connected to the drain opening; and a pump (664, 682) having a low pressure side and a high pressure side, the low pressure side being connected to the second valve, a fluid flowing into the inlet opening, through the passageway, and out of the at least one outlet opening when the first valve is open and the second valve is closed, the fluid flowing from the passageway out of the drain opening when the first valve is closed and the second valve is open.

As to claim 12, in Tanaka et al (see Fig 53) no fluid flows from the passageway out of the outlet opening when the first valve is closed and the second valve is open.

Regarding claim 13, in Tanaka et al (see Fig 53) the drain opening is adjacent to the bottom of the passageway.

Claim Rejections - 35 USC § 102/103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 14-15 are rejected under 35 U.S.C. 102(b) as anticipated by Tanaka et al (US 2002/0121341 A1) or, in the alternative, under 35 U.S.C. 103(a) as unpatentable over Tanaka et al (US 2002/0121341 A1) as applied to claim 13 above and further in view of Nagamine (US 2002/0053319).

As to claim 14, Tanaka et al discloses (see Figs 49-50) substrate support (610) and a dispensing head (630) connected to the pots (620, 622) that appear to have frame structures and the head is suspended in a selected position relative to the substrate. In any event, it is well known in the art to attach a dispense head and a substrate support to a frame; for instance Nagamine discloses (see Fig 6) a frame (15), wherein the dispense head (nozzle 100) and the substrate support (spin chuck 71) are connected to the frame and the head is suspended in a selected position relative to the substrate. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a frame connected to the substrate support and the dispense head in Tanaka et al to appropriately mount the application devices in a deposition or processing unit that are necessary for treatment of a substrate.

With respect to claim 15, in Tanaka et al (see Fig 53) the first valve (648,668) is open and the second valve (652, 672) is closed, the fluid flows into the inlet opening (638, 642), through the passageway (634), out of the at least one outlet opening (632), and onto the semiconductor substrate.

Allowable Subject Matter

6. Claims 16-21 are allowed.
7. Claims 2-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
8. The following is a statement of reasons for the indication of allowable subject matter: see reasons for allowance described in the action mailed on 01/03/2006.

Response to Arguments

9. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection. As shown in the rejection above Tanaka et al meets claim 1 limitation as amended.
10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within


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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yewebdar T. Tadesse whose telephone number is (571) 272-1238. The examiner can normally be reached on Monday-Friday 8:00 AM-4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla can be reached on (571) 272-1187. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



CHRIS FIORILLA
SUPERVISORY PATENT EXAMINER
AU 1734